

AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in the application. Please cancel claim 2 without prejudice or disclaimer, amend claims 1, 16, 20, 47, 49, 51, and 53-55, and add new claim 56, as follows:

Claim 1 (Currently Amended): A composition comprising kaolin having a shape factor of at least about 23 [[20]], wherein at least about 85% by weight of the kaolin has an esd of less than about 1 μm , [[and]] the amount of the kaolin having an esd of less than about 0.25 μm ranges from about [[25%]] 35% to about 60% by weight, and a Hercules viscosity of less than about 4000 rpm at 18 dynes at 63% solids when measured using an "A" bob.

Claim 2 (Canceled).

Claim 3 (Original): The composition according to claim 1, wherein the kaolin has a Hercules viscosity of less than about 2750 rpm at 18 dynes at 66% solids when measured using the "A" bob.

Claim 4 (Original): The composition according to claim 1, wherein the kaolin has a Hercules viscosity of less than about 1500 rpm at 18 dynes at 69% solids when measured using the "A" bob.

Claim 5 (Original): The composition according to claim 1, wherein at least about 94% by

weight of the kaolin has an esd of less than about 2 μm .

Claim 6 (Original): The composition according to claim 1, wherein at least about 95% by weight of the kaolin has an esd of less than about 2 μm .

Claim 7 (Original): The composition according to claim 1, wherein at least about 96% by weight of the kaolin has an esd of less than about 2 μm .

Claim 8 (Original): The composition according to claim 1, wherein at least about 98% by weight of the kaolin has an esd of less than about 2 μm .

Claim 9 (Original): The composition according to claim 1, wherein the amount of the kaolin having an esd of less than about 2 μm ranges from about 94% to about 99% by weight.

Claim 10 (Canceled).

Claim 11 (Original): The composition according to claim 1, wherein at least about 88% by weight of the kaolin has an esd of less than about 1 μm .

Claim 12 (Original): The composition according to claim 1, wherein at least about 92% by weight of the kaolin has an esd of less than about 1 μm .

Claim 13 (Original): The composition according to claim 1, wherein the kaolin has a shape factor of at least about 30.

Claim 14 (Original): The composition according to claim 1 wherein the kaolin has a shape factor of at least about 40.

Claim 15 (Original): The composition according to claim 1, wherein the kaolin has a shape factor of at least about 50.

Claim 16 (Currently Amended): The composition according to claim 1, wherein the kaolin has a shape factor ranging from about [[20]] 23 to about 60.

Claim 17 (Original): The composition according to claim 1, wherein the kaolin has a shape factor ranging from about 40 to about 50.

Claim 18 (Original): The composition according to claim 1, wherein the kaolin has a shape factor ranging from about 30 to about 40.

Claim 19 (Original): The composition according to claim 1, wherein the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 35% to about 50%

by weight.

Claim 20 (Currently Amended): The composition according to claim 1, wherein the kaolin has a shape factor ranging from about 45 to about 50, at least about 96% by weight of the kaolin has an esd of less than about 2 μm , at least about ~~[[80%]]~~ 85% by weight of the kaolin has an esd of less than about 1 μm , and the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 35% to about 45% by weight.

Claim 21 (Original): A method of refining kaolin, comprising:

- (a) providing a degritted kaolin slurry comprising a sedimentary kaolin having a particle size distribution such that at least about 70% by weight of the kaolin has an esd of less than about 2 μm ;
- (b) classifying said kaolin slurry to obtain a kaolin having a shape factor of at least about 20, wherein at least about 94% by weight of the kaolin has an esd of less than about 2 μm .

Claim 22 (Original): The method according to claim 21 wherein the degritted kaolin slurry comprises a substantially stackless sedimentary kaolin.

Claim 23 (Original): The method according to claim 21, wherein the kaolin has a Hercules viscosity of less than about 4000 rpm at 18 dynes at 63% solids when

measured using the "A" bob.

Claim 24 (Original): The method according to claim 21, wherein the kaolin has a Hercules viscosity of less than about 2750 rpm at 18 dynes at 66% solids when measured using the "A" bob.

Claim 25 (Original): The method according to claim 21, wherein the kaolin has a Hercules viscosity of less than about 1500 rpm at 18 dynes at 69% solids when measured using the "A" bob.

Claim 26 (Original): The method according to claim 21, wherein the amount of the classified kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight.

Claim 27 (Original): The method according to claim 21, wherein the degritted kaolin slurry provided in (a) comprises at least about 80% by weight of the kaolin having an esd of less than about 2 μm .

Claim 28 (Original): The method according to claim 21, wherein the degritted kaolin slurry provided in (a) has a shape factor of at least about 10.

Claim 29 (Original): The method according to claim 21, further comprising a wet media

grinding step prior to (b).

Claim 30 (Original): The method according to claim 29, wherein the wet media grinding consumes in the range of 0 to about 35 Kw-hr/ton of energy.

Claim 31 (Original): The method according to claim 29, wherein the wet media grinding consumes in the range of about 35 to about 200 Kw-hr/ton of energy.

Claim 32 (Original): The method according to claim 21, further comprising subjecting the degritted kaolin slurry to a beneficiation step selected from: selective flocculation, ozone treatment, flotation, magnetic separation, leaching, or any combination thereof.

Claim 33 (Original): The method according to claim 21, further comprising subjecting the classified kaolin to a beneficiation step selected from: selective flocculation, ozone treatment, flotation, magnetic separation, leaching, or any combination thereof.

Claim 34 (Previously Presented): The method according to claim 21, wherein the classifying in (b) comprises removing a portion of the fines.

Claim 35 (Original): The method according to claim 21, wherein the degritted kaolin slurry provided in (a) has a shape factor of at least about 15 and at least about 80% by

weight of the kaolin in the degritted kaolin slurry has an esd of less than about 2 μm .

Claim 36 (Original): The method according to claim 34, wherein after removing the portion of fines, the particle size distribution ranges from about 25% to about 60% by weight less than about 0.25 μm .

Claim 37 (Original): The method according to claim 34, wherein after removing the portion of fines, the particle size distribution is about 40% by weight less than about 0.25 μm .

Claim 38 (Previously Presented): A method of refining kaolin, comprising:

- (a) providing a degritted Kaolin slurry having a shape factor of at least about 10 and including at least about 80% by weight particles having an esd of less than about 2 μm ;
- (b) wet media grinding the degritted kaolin slurry consuming in the range of from about 10 to about 200 Kw-hr/ton of energy; and
- (c) classifying the slurry to a fine fraction wherein from about 96% to about 98% by weight of the classified kaolin has an esd of about 2 μm .

Claim 39 (Canceled).

Claim 40 (Original): The method according to claim 38, wherein the degritted kaolin

slurry provided in (a) has a shape factor of at least about 20.

Claim 41 (Original): The method according to claim 38, wherein the degritted kaolin slurry provided in (a) has a shape factor of at least about 30.

Claim 42 (Original): The method according to claim 38, wherein the degritted kaolin slurry provided in (a) has a shape factor of at least about 40.

Claim 43 (Original): The method according to claim 38 in part (c), wherein the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight.

Claim 44 (Original): The method according to claim 38, further comprising spray-drying the fine fraction.

Claim 45 (Original): The method according to claim 38, wherein the kaolin slurry is subjected to a beneficiation step selected from: selective flocculation, ozone treatment, flotation, magnetic separation, leaching, or any combination thereof.

Claim 46 (Original): The method according to claim 38, further comprising leaching the kaolin fine fraction and filtering and drying the leached kaolin fine fraction.

Claim 47 (Currently Amended): A coated paper comprising:

a fibrous substrate; and
a coating on the substrate comprising kaolin having a shape factor of at least about 23 [[20]], wherein at least about 85% by weight of the kaolin has an esd of less than about 1 μm , [[and]] the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight, and a Hercules viscosity of less than about 4000 rpm at 18 dynes at 63% solids when measured using an "A" bob.

Claim 48 (Original): The paper according to claim 47, wherein at least about 94% by weight of the kaolin has an esd of less than about 2 μm .

Claim 49 (Currently Amended): The paper according to claim 47, wherein the kaolin has a Hercules viscosity of ~~less than 4000 rpm at 18 dynes at 63% solids and less than 1500 rpm at 18 dynes at 69% solids when measured using the "A" bob.~~

Claim 50 (Original): The paper according to claim 47, wherein the coating further comprises calcium carbonate.

Claim 51 (Currently Amended): A method of making a coated paper comprising: coating a fibrous substrate with a paper coating composition comprising kaolin having a shape factor of at least about 23 [[20]], at least 85% by weight of the kaolin has an esd of less than 1 μm , [[and]] the amount of the kaolin having an esd of less than about 0.25 μm

ranges from about 25% to about 60% by weight, and a Hercules viscosity of less than about 4000 rpm at 18 dynes at 63% solids when measured using an "A" bob.

Claim 52 (Original): The method of claim 51, wherein at least about 94% by weight of the kaolin has an esd of less than about 2 μm .

Claim 53 (Currently Amended): The method of claim 51, wherein the kaolin has a Hercules viscosity of ~~less than 4000 rpm at 18 dynes at 63% solids and less than 1500 rpm at 18 dynes at 69% solids when measured using the "A" bob.~~

Claim 54 (Currently Amended): A method of making a kaolin slurry, comprising: dewatering degritted kaolin with an evaporator, wherein the kaolin has a shape factor of at least about 50, and at least about 85% by weight of the kaolin has an esd less than about 2 μm .

Claim 55 (Currently Amended): A method of making a kaolin slurry, comprising: dewatering degritted kaolin with an evaporator, wherein the kaolin has a shape factor of at least about 25, and at least about 85% by weight of the kaolin has an esd less than about 2 μm .

Claim 56 (New): A coated paper comprising:

a fibrous substrate; and

a coating on the substrate comprising kaolin having a shape factor of at least about 23, at least about 85% by weight of the kaolin having an esd of less than about 1 μm and the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight,

wherein gloss of the coated paper is greater than about 45 TAPPI units.